

Please amend claims 110-114 and 117 as follows:

110. (Twice amended) A substrate with a surface comprising 10^3 or more groups of oligonucleotides with different, known sequences covalently attached to the surface in [predefined] discrete known regions, said 10^3 or more groups of oligonucleotides occupying a total area of less than 1 cm^2 on said substrate, said groups of oligonucleotides having different nucleotide sequences.

111. (Twice amended) The substrate as recited in claim 110 wherein said substrate comprises 10^4 or more different groups of oligonucleotide with known sequences covalently coupled to [predefined] discrete known regions of said substrate.

112. (Twice amended) The substrate as recited in claim 110 wherein said substrate comprises 10^5 or more different groups of oligonucleotides with known sequences in [predefined] discrete known regions.

113. (Twice amended) The substrate as recited in claim 110 wherein said substrate comprises 10^6 or more different groups of oligonucleotides with known sequences in [predefined] discrete known regions.

114. (Twice amended) The substrate as recited in claim 110 wherein said groups of oligonucleotides are at least 50% pure within said [predefined] discrete known regions.

117. (Amended) An array of more than [500] 1,000 different groups of oligonucleotide molecules with known sequences covalently coupled to a surface of a substrate, said groups of oligonucleotide molecules each in [predefined] discrete known regions and differing from other groups of oligonucleotide